IMPLEMENTATION TEAM MEETING NOTES

September 6, 2000, 9:00 a.m.-4 p.m.

NATIONAL MARINE FISHERIES SERVICE OFFICES
PORTLAND, OREGON

I. Greetings, Introductions and Review of the Agenda.

The September 6, 2000 meeting of the Implementation Team, held at the National Marine Fisheries Service's offices in Portland, Oregon, was chaired by Brian Brown of NMFS and facilitated by Donna Silverberg. The agenda for the September 6 meeting and a list of attendees are attached as Enclosures A and B.

The following is a distillation (not a verbatim transcript) of items discussed at the meeting, together with actions taken on those items. Please note that some enclosures referenced in the body of the text may be too lengthy to attach; all enclosures referenced are available upon request from NMFS's Kathy Ceballos at 503/230-5420 or via email at kathy.ceballos@noaa.gov.

Silverberg welcomed everyone to the meeting, led a round of introductions and a review of the agenda.

II. Updates.

A. In-Season Management (TMT). Cindy Henriksen of the Corps reported that, with the arrival of September, the planning date for flow augmentation and fish migration has passed; the final weekly TMT meeting was held on August 31. Henriksen distributed the August 31 TMT spreadsheet, which summarized flows and reservoir operations for the entire 2000 in-season management period. Henriksen noted that, at Lower Granite, observed flow averaged 85 Kcfs during the spring period and 35 Kcfs during the summer period. At Priest Rapids, observed flow averaged 157 Kcfs during the

spring period. At McNary, observed flow averaged 243 Kcfs during the spring period and 156 Kcfs during the summer period.

Henriksen said that, while early spring precipitation was near normal levels, by May, it had begun to sag well below average. In June, precipitation and project inflows sagged lower still; the bottom line was that we missed refill at Dworshak and Grand Coulee by about three feet, she said.

The storage projects have now reached their summer interim draft limits, Henriksen continued, noting that Libby never did refill to its summer interim draft limit. That project is now about 25 feet from full and drafting, releasing 8 Kcfs, Henriksen said. Hungry Horse reached its interim draft limit on August 31 and is releasing only the water needed to maintain minimum flow at Columbia Falls. At Grand Coulee, current elevation is near 1280 feet, said Henriksen; the project is essentially passing inflow. Dworshak reached elevation 1520 on August 31, and has released the minimum outflow needed to avoid violation of the Idaho State water quality standards since then. Current flow at Lower Granite is about 14 Kcfs, Henriksen said; at McNary, current flows are averaging 125 Kcfs.

The Corps received an SOR yesterday, asking us to begin refilling the Lower Snake projects above minimum operating pool, Henriksen said; that operation began today. She added that spill for fish passage ceased at Ice Harbor, John Day, The Dalles and Bonneville on midnight, August 31. In short, Henriksen said, the in-season management period is at an end; the next regularly-scheduled TMT meeting is Thursday, September 20.

Henriksen asked whether there are any special reports or other work products the IT would like from TMT this fall. So the only seasonal flow objective that was met in 2000 was the Priest Rapids target? Jim Nielsen asked. Correct, Henriksen replied. What is the current water temperature situation? Nielsen asked. The fixed monitoring station in Lower Granite forebay is currently reporting average temperatures of approximately 68 degrees F, Henriksen replied; the Lower Granite tailwater station has been reporting temperatures in the 64-66-degree range for the past several weeks.

Is the Corps planning to implement the Ives Island operation shown in the 2000 FCRPS BiOp this year? Ron Boyce asked. The Corps signed a Record of Decision for the 2000 supplemental BiOp which included that operation, Henriksen replied; until the draft FCRPS BiOp is signed, we will continue to operate the system according to the terms of that ROD. So you do plan to operate to meet the Ives Island flow targets? Boyce asked. The Corps will have to work in cooperation with Reclamation, Henriksen replied, but that is certainly on the radar screen for fall and winter operations.

With respect to Cindy's question about special reports to the IT this fall, said Boyce, I would be interested to see whether there was anything that could have been done to meet the refill targets at Dworshak, Grand Coulee and Libby this summer. We could have refilled those projects, certainly, but that would have meant even lower flows during the migration season, Henriksen replied – that was a conscious decision, on TMT's part. What about the possibility of investigating better forecasting tools?

Boyce asked – the refill problem was certainly exacerbated by the deep flood control drafts this spring. I think the forecast was pretty consistent through the April and May periods, Henriksen said – even the June final forecast was very consistent with the forecasts we were seeing from January onward. Henriksen reiterated that below-average precipitation from May onward was the main culprit in the inability to refill Dworshak, Grand Coulee and Libby; precipitation in June, the most critical month for refill, was 75% of normal or less throughout the basin. Since that precipitation never materialized, Henriksen said, we simply didn't get the runoff we expected during the month of June.

I'm not a forecaster, said Boyce, but these observed flows are pretty much a disaster. One of the major reasons for that is the fact that three of the major storage reservoirs were not full on June 30; my question for TMT is, was there something you could have done better this year? Boyce said. There was considerable debate in TMT about the risks associated with prioritizing spring flow augmentation over reservoir refill, said Jim Litchfield – one thing that tends to happen is that the Corps' forecast concentrates on expected refill probability; we tend to make decisions on that basis, but there is a 50% chance that forecast is going to be wrong. If we want to be more conservative in our approach, Litchfield said, then we need to change the numbers we're working from – we need to start looking at a 70%-75% refill probability, rather than a 50% probability.

Henriksen reminded the group that the Corps does not develop the inflow and water supply forecasts; we rely on the River Forecast Center to do that, because that is their mission as an independent agency, she said. That forecast information is screened and assessed, she said, but in the end, whether or not refill is achieved is primarily weather-dependent.

Jim Yost said he doesn't understand the logic in second-guessing, after the season, the decisions made at TMT which, in this particular water year, consciously chose to favor spring flow augmentation over refill. The other part of this equation is the action agencies' flood control operation, said Jim Nielsen; the new BiOp does request that the Corps take an in-depth look at system flood control, and whether or not it is really necessary to draft the storage reservoirs as deeply as we currently do.

Dan Daley noted that the Corps has already responded to the BiOp request by saying that such an effort will take money, time and, potentially, a change in authorization. Clearly, he said, this is not a task we can ask the TMT to undertake.

Litchfield observed that there is little profit in pointing fingers now that the season is over; clearly, all three factors – flood control operations, flow augmentation operations and weather – played a role in our failure to refill Libby, Dworshak and Grand Coulee in 2000. One thing that could use some serious post-season discussion at TMT, however, is how much risk we're really willing to take at any given point, he said. It would be helpful if we could be much more rigorous about our decision criteria, and what constitutes acceptable risk, Litchfield said.

Howard Schaller suggested that one potentially profitable area of inquiry for TMT and the River Forecast Center is whether or not there is bias in the forecasting tools in current use. The thing that needs to be evaluated in the forecasting tools is whether or not they're consistently overestimating runoff, he said. Ruff noted that the RFC has reviewed its forecasting methodology at least twice in the last seven to eight years; what they found was that there is no bias, one way or the other, in the forecast. That being said, they are using a somewhat antiquated regression tool for their forecast, said Ruff – they are moving toward something called ESP, a new tool that is being used elsewhere in the west and is supposed to be more accurate. Will it give us better forecasts? Ruff asked. I don't know, but I would agree with Jim Litchfield that, if the TMT wants to reduce the risk to refill, they ought to be working with a 70%-75% refill probability curve for each project, rather than 50%.

With respect to Cindy's question about whether or not there is some sort of a report we would like them to produce this fall, said Brown, I think it might be helpful to request a report laying out some commentary on the main features of the 2000 migration. One of the issues was obviously refill; if you look at the spreadsheet, from the last week in April through the first three weeks in May, we saw McNary flows of 300 Kcfs, 280 Kcfs, 250 Kcfs and 240 Kcfs – the first three weeks well above the seasonal flow target. During this entire time, said Brown, Grand Coulee was drafting, and it would be interesting to know why. It would also be interesting to know why Libby didn't refill this year, as well as whether or not our temperature control efforts using Dworshak were successful this year. In other words, he said, I would like to see a page or two of commentary on the key features of the 2000 in-season management period. We might also ask TMT to give some thought to what could be improved in future years, Litchfield added.

Henriksen observed that, in recent years, TMT has devoted considerable effort to debating relatively minor differences in flow and reservoir elevation – 2 Kcfs plus or minus here, or two-tenths of a foot in reservoir elevation there. One thing we started to try to do last year was explore a new way of looking at things, she said – namely, how much resource do we have left? We did that for Dworshak and Hungry Horse last year, Henriksen said; it may make sense to try to do that for all storage projects next year.

After a few minutes of further discussion, Brown asked that TMT develop the requested post-season report in time for presentation at the November IT meeting. Henriksen said that should be possible; she added that TMT will also discuss the feasibility of developing and working from 70% refill probability curves, rather than the 50% probability curves that have been used in the past.

B. Independent Scientific Advisory Board (ISAB). Chip McConnaha of the Northwest Power Planning Council staff reported that the ISAB is concentrating on four main tasks at present; the largest of which is a review of the region's modeling and analytical systems. ISAB held a series of briefings with the various modeling groups, as well as a two-day workshop, the purpose of which was to discuss the similarities and differences between the various analytical systems, as well as their purposes and intents. McConnaha said this task is now essentially complete, and that the ISAB should

be issuing its report some time in the next month. McConnaha added that the report does not condemn or endorse any particular modeling tool; each of them does different tasks, and is simply another component in the regional toolbox. Our hope is that this report will provide a very useful summary for decision-makers of what each of the models does and does not do, what their strengths and weaknesses are, and where the greatest potential lies for future model development, McConnaha said.

The other main task occupying the ISAB's time is a Council-assigned review of the artificial production performance standards, McConnaha said; basically, the ISAB has been reviewing the performance standards developed by the Council/CBFWA Artificial Production Committee for hatcheries in the region with an eye to their consistency with the set of scientific principals the Council has adopted to guide artificial production in the region. McConnaha said the ISAB's final artificial production performance standard's report should also be available soon.

The third current area of effort for the ISAB is a review of harvest, he continued; it was initiated originally at the suggestion of the Native Fish Society. The original task has now been expanded to include a variety of harvest issues; frankly, said McConnaha, we're recommending that the ISAB put this task aside for now, because the question to be answered has not been fully fleshed out. McConnaha said NMFS is in the process of developing a formal set of harvest questions for the ISAB to answer; we haven't seen those questions yet, but they should be available soon. Will there be an opportunity for others in the region to review and comment on the questions before ISAB sets to work? Jim Nielsen asked. Not typically, McConnaha replied, although the ISAB is open to any comments the states and others would like to provide.

The fourth item I wanted to mention is more an area of ISAB concern than it is a formalized project, McConnaha said – that is information management and monitoring and evaluation in the region. Data collection and standardization and data gaps are a longstanding concern, and the ISAB is at a point where they would like to tackle this as a question, an assessment of information management and monitoring and evaluation in the region. He noted that the Independent Scientific Review Panel recently undertook a review of the information management projects funded under the Council program; many of the ISRP members who worked on that task are also on the ISAB, and the ISAB would like to weigh in on that question.

Finally, said McConnaha, in a related vein, as many of you are aware, the Council recently chartered a formal Regional Assessment Advisory Committee. This body was created to provide technical advice on the NMFS/Council subbasin assessment project, which will be producing a biological assessment of each of the 58 subbasins in the Columbia Basin. The advisory committee will be focusing its efforts on several main areas, McConnaha said – first, in the development of the analytical techniques for the subbasin assessment, in particular, further development of the EDT model. Second, the RAAC will coordinate that model with other tools in the region to be used in these subbasin assessments. Third, said McConnaha, the advisory committee will be helping the Council with the information management involved in the assessment in general. Fourth, he said, they will be asked to

help organize the available information; it is the Council's hope that the advisory committee will provide a forum for the region to begin talking about the development of a true regional information system.

In terms of the connection to ISAB, said McConnaha, as part of the RAAC charter, one member of the ISAB will be on the advisory committee, and will serve as a liaison between the two groups. He added that the advisory committee will be co-chaired by NMFS.

One other item with respect to ISAB membership, said McConnaha – as most of you are aware, the ISAB members are appointed by the Council chair and the NMFS director, based on nominations from the National Research Council. Typically, after a very long, cumbersome and painful process, we receive two or three nominees for each vacancy, McConnaha explained; it often takes up to a year to conclude the nomination and appointment process. To help streamline this process, NMFS and the Council have sent a letter out to the region, proposing that a pool of suitable candidates be created – perhaps 50 nominees that have been vetted by the NRC. A few nominations have been received to date, McConnaha said, but if anyone here knows of suitable candidates, please let the Council know. He added that this pool will also be used to fill vacancies on the ISRP.

Finally, said McConnaha, the Council's draft Fish and Wildlife Program amendment is now available for review and comment; it is the Council's intent to act on the amended program at its October meeting; comments are due by September 22. He noted that, under the amended program, the tribes will become co-equal partners in appointees to the ISAB with the Council and NMFS.

C. Water Quality Team (WQT). Mark Schneider reminded the IT of Mike Schneider's presentation on his systemwide TDG (SYSTDG) model at the July IT/WQT/SCT meeting; at that meeting, the IT had asked about the application of this model as a management tool. The answer is that the SYSTDG model does indeed have management applications, said Schneider; it is almost ready to be used in that fashion, but requires a little additional work. That additional work will require a little additional funding from Bonneville, Schneider explained.

I have since heard that Jim Irish, the Bonneville contract administrator for this project, is eager to finish the model, said Mark Schneider; the additional piece of good news is that Mike Schneider, who developed the model, has moved from the Waterways Experiment Station in Vicksburg Mississippi to The Dalles. That will be very helpful, from a logistical standpoint, as Mike works to finish up the SYSTDG model, said Mark Schneider.

The schedule for this work lays out as follows, said Schneider. The model is currently being reviewed by Corps gas abatement staff, the Reservoir Control Center and the Bureau of Reclamation; comments are due to BPA by the end of next week. Once the comments have been received and assimilated into the model, a two-day training session will be scheduled, to show interested parties how to use the model. After that, there will be a period for review and comment by the Water Quality Team;

it is hoped that this process will be completed, and any suggestions and comments incorporated into the model, by the end of October. At that point, said Schneider, the SYSTDG model should be just about ready to go. In other words, he said, we will have an SYSTDG model that is fully operational in time for use during the 2001 passage season.

D. System Configuration Team (SCT). NMFS' Bill Hevlin said there isn't a great deal to report on the SCT front; the group is still working on its rankings for the Corps' FY'01 capital construction program. There are 97 line-items in the FY'01 program, Hevlin said, and as you're all aware, it isn't easy to come to agreement on how each of those items should be ranked. We have been talking about ways to cut costs within the program, he said, because, from what we've heard from the Appropriations Committee, the CRFM program is likely to have about $80 million to spend in FY'01, and that won't be enough to fund every line-item. This discussion will resume at the September 8 SCT meeting, he added.

E. Quantitative Analytical Report (QAR). No QAR update was presented at today's meeting.

III. Discussion of NWPPC's Draft Hydro Amendments Relative to Implementation Team Structure.

Ruff said NMFS has been looking at the Council's draft 2000 Fish and Wildlife Program from a hydro perspective; this is Section 5, "Hydrosystem Passage and Operations." If you haven't seen this document already, said Ruff, the Council is proposing that several implementation advisory committees be created, including a Hydrosystem Operations Committee, a Subbasin Planning Coordination Committee and an Artificial Production Committee.

With respect to the Hydrosystem Operations Committee, Ruff said, there are a number of questions, from NMFS' perspective, about how this new committee would fit in with the existing Regional Forum processes. What the Council says in the draft Fish and Wildlife Plan is that it is their perspective that the part of the Regional Forum implementation structure that allows for technical review functions adequately; however, there is a need for greater openness and participation by affected entities. Another comment, later in the section, is that the Council recommends to the federal agencies that the implementation structure be reorganized and jointly sponsored by the Council and the federal agencies.

NMFS' initial response is that the Council's participation in the process would be welcome, said Ruff; we note that Bruce Suzumoto has been a regular attendee at IT, SCT and TMT meetings this summer. We encourage the Council to continue to work with us in this forum, Ruff said, as well as in the coordination effort we will need to implement the five-year work plans. John Palensky noted that the Regional Forum guidelines allow for Council membership.

We also have some questions for the IT to consider, said Ruff; first and foremost, why did the Council see the need for another advisory committee on hydropower operations? We have been criticized frequently for having too much process here in the region, he said, and frankly question the need to create what is essentially a dual process, another committee with a similar role to that currently filled by IT and TMT.

Suzumoto said this provision in the Fish and Wildlife Plan is driven, at its core, by the fact that the Executive Committee no longer meets, and by the concern that there are a number of hydro-related policy issues on which the Council would like to provide input.

Jim Nielsen observed that it isn't clear, from the language in the draft Fish and Wildlife Plan, what the need for, scope, intent and authority of the Hydrosystem Operations Advisory Committee would be. One of the criticisms we hear frequently is that the Regional Forum deals only with the implementation of the Biological Opinion, Nielsen said; obviously the Council's charge goes well beyond that. And I think that is one of the issues, Suzumoto replied -- I can't speak for the Council, but I believe that they do feel it would be appropriate to create a forum for policy-level discussion of issues that go beyond the implementation of the BiOp only. So the Council sees the Hydrosystem Operations Advisory Committee as functioning more along the lines of the old FOEC, or a mainstem Executive Committee, rather than as a forum that would supplant the IT and the Regional Forum technical committees? Ruff asked. That's my understanding, Suzumoto replied.

In the course of a few minutes of further discussion, various IT participants, including Jim Athearn and Jim Nielsen, expressed the view that it would make more sense to encourage more robust Council participation in the existing Regional Forum process than it would to create a parallel process that would cover many of the same issues addressed by the Regional Forum.

IV. Discussion of Approach to the Hydro Portion of the Five-Year Plan Called for In the NMFS 2000 FCRPS Biological Opinion.

Brown said the 2000 BiOp includes the expectation that five-year implementation plans will be completed by January 2001; these plans will feed into the subsequent discussions about the BPA Fish and Wildlife Program budget and the Power Planning Council process, as well as the SCT's discussion of the CRFM budget.

NMFS will be spending most of its time this fall finalizing the BiOp, said Brown; we have been discussing, with the action agencies, our respective roles, this fall and winter, in the development of the five-year plans. Under the BiOp, it is the action agencies' responsibility to produce the five-year plans, Brown said, in collaboration with NMFS and the Fish and Wildlife Service.

There is still some question about what role, if any, the Implementation Team and some of the other Regional Forum committees will play in the development of the five-year plans, Brown continued.

In essence, the five-year plans will be a federal product, articulating their plans for the next five-year period. However, if we miss the January 2001 deadline, we will miss the window of opportunity for using those plans to inform the subsequent 2002 funding discussions, Brown said – in essence, we will lose a year.

Jim Athearn said the Corps is still working out how it will approach the five-year planning process; he asked whether it is more important to NMFS that the five-year plans coincide with the five-year check-in point, or whether the five-year period itself is more significant. What I'm getting at, said Athearn, is whether, if this process takes a little longer the first time, a four-year plan ending in 2005 still achieves the critical planning goal. In my mind, at least, there is no relationship between the fact that we use a five-year planning horizon and the fact that we have a significant check-in in 2005, Brown replied – the planning horizon is refreshed every year, and you will produce a five-year plan every year.

Will the Implementation Team be overseeing the development of the non-hydro five-year plans as well? Boyce asked. I don't foresee that, Brown replied – there is an established process, in which the states and tribes participate, which decides what gets funded by Bonneville. NMFS' intent is to use that established process to decide what needs to be funded in order to implement this Biological Opinion; that includes habitat, harvest and hatchery actions. The intent is that the five-year plans from the action agencies will include actions in the non-hydro Hs, and will seed the CBFWA/Council process, he said. Brown referred the group to Enclosure E, a timeline showing the key events in the 2000 BiOp implementation planning process.

Boyce asked whether or not it would be appropriate for the action agencies to seek input from others in the region, such as the states and tribes, as they develop their five-year implementation plans. Brown replied, in essence, that this is up to the action agencies – their charge is to develop the five-year plans in consultation with NMFS and the Fish and Wildlife Service, he said, and they have not yet informed NMFS whether or not they intend to seek outside input during the plan development process.

The group discussed the various avenues for state and tribal input into the BiOp implementation planning process, including the Council's early action process; in response to another comment from Boyce, Daley said it is not the action agencies' intent to restrict state and tribal participation in the development of the five-year implementation plans. Brown added that, to NMFS, the five-year plans are the mechanisms through which the federal parties will lay out proposed actions in order to engage the states and tribes in subsequent discussion. I think that may be workable, as long as you allow enough time for the states and tribes to provide meaningful input into the plans before they are implemented, Boyce replied.

Daley noted that, under this schedule, the states, tribes and federal parties will have from January through September to discuss the plans for the coming fiscal year. Boyce observed that the key period for state and tribal input will occur between the time the draft plans are submitted for regional review and comment in January, and the subsequent call for proposals in the spring.

Bob Nichols asked how NMFS can realistically expect the action agencies to produce a five-year BiOp implementation plan in January if, as Brown said previously, NMFS will be working to finalize the 2000 BiOp from now until the end of the year. If the BiOp doesn't change at all between now and January, said Nichols, it may be possible to develop such plans, but if major changes are made in response to the comments received, then a January deadline quickly becomes unworkable. Brown replied that NMFS has worked closely with the federal operators in the development of the 2000 FCRPS BiOp; comments are due at the end of this month, and NMFS will be in regular communication with the action agencies, so that there are no major surprises once the BiOp is actually signed in December. Litchfield added that this initial five-year plan is not going to be carved in stone; the point of updating these implementation plans on an annual basis is to allow opportunities to change direction in response to new input received. Even if the initial five-year plan is less than completely fleshed-out, Litchfield said, we can flesh it out further during subsequent months.

When does the first one-year plan come out, and who will be responsible for its development? Litchfield asked. I believe the first one-year plan is due in September 2001, Ruff replied; it would probably be worthwhile for the IT to consider who should be responsible for the development of things like the Water Management Plan, the System Configuration Plan, the Water Quality Plan and R M&E. Brown asked that, between now and the October 4 IT meeting, the action agencies develop a workplan for how they intend to develop the five-year implementation plans by January. In other words, he said, today's discussion should give you a sense of the issues that are out there for the region, and we would like to know, by next meeting, that you are on-task.

We will either come to the October meeting with that workplan, or a reason why it couldn't be developed, said Daley. The reason I'm qualifying that is that there are a number of conversations that need to occur between the action agencies and the Council, to ensure that the process we envision lines up correctly with the process the Council envisions, Daley said.

V. Overview of the Analysis of the NMFS 2000 FCRPS BiOp.

NMFS' Roger Schiewe led this discussion; he began by distributing Enclosure D, a series of graphs summarizing the differences in project outflow at Lower Granite, McNary and Priest Rapids Dams under the measures called for in the 2000 FCRPS Biological Opinion vs. those in the 1998 BiOp 50-year average. The handout also summarizes the expected change in reservoir elevations through the season at Libby, Hungry Horse and Grand Coulee.

Schiewe went briefly through this information, noting first that elevations at Libby, under the new BiOp, will be substantially (up to 30 feet) higher than the 50-year average, particularly during the months of March and April. That is because we will be using a different, VAR-Q flood control upper rule curve for operations under the 2000 BiOp, Schiewe explained, adding that, on average, Hungry Horse and Grand Coulee elevations will be somewhat – a couple of feet – lower under the new BiOp than they have been under the 1995 and 1998 BiOps.

These changes in reservoir operation's result in some changes in flow downstream, said Schiewe; these changes in project outflow, again in comparison to 50-year average flow, by month, are also summarized in the handout (please see Page 2 of Enclosure D). At Priest Rapids Dam, for example, average flows would increase by up to 8 Kcfs (compared to the 50-year average) during the summer period, but would decrease by up to 8 Kcfs during the months of December and January, Schiewe said. At Lower Granite, average flows would be virtually unchanged under the reservoir operations called for in the 2000 BiOp. At McNary, again, flows would be up to 8 Kcfs higher during the summer period and correspondingly lower during December and January, said Schiewe. Flows would also be slightly lower during April and May at McNary and Priest Rapids Dams because the new BiOp emphasizes refilling the projects by the end of June; however, average June flows are higher and the number of years in which flow and refill targets would be met would also increase.

Will NMFS and Bonneville be developing an estimate of the cost of this new operational regime? Bruce Lovelin asked. We're in the process of doing that, Schiewe replied; however, some of these measures affect hourly and daily operations at the projects, and we're not able to capture those kinds of effects in the month-average model we're currently using. Essentially, we're in the process of correlating the results from the monthly model with results from the hourly model to develop a cost estimate, said Schiewe; we're well along on that process, but it isn't easy to do. Hopefully, however, the cost estimate information will be available within the next week or so. Dan Daley warned that the cost estimates that are currently under development may not be directly comparable to the cost estimates developed for the 1995 and 1998 Biological Opinions, because the market assumptions that drive these cost estimates have changed fairly dramatically.

VI. Overview of US Fish and Wildlife Service Biological Opinion on FCRPS Hydro Operations.

Susan Martin of the Fish and Wildlife Service provided an overview of the USFWS draft Biological Opinion on Effects to Listed Species from Operation of the FCRPS, which was released for comment on July 27. The highlights of Martin's presentation are captured in Enclosures E and F; please refer to these documents for details. Martin noted that the species covered in the Fish and Wildlife Service BiOp is bull trout and Kootenai River sturgeon; she explained that one of the main reasons this BiOp is being developed is to eliminate conflicts between operations for the bull trout and sturgeon populations listed by USFWS and operations for the anadromous salmon and steelhead species listed by NMFS.

Various IT participants offered questions and comments at today's meeting; at the end of this discussion, Daley suggested that it would be appropriate for the action agencies to meet and develop a work plan outline for the implementation of the Fish and Wildlife Service Biological Opinion, similar to the work plan that will be developed for the draft 2000 NMFS BiOp, in time for presentation and discussion at the October 4 IT meeting. It was so agreed.

VII. Approval of Minutes from the August 2 IT Meeting.

The minutes from the August 2 IT meeting were approved.

VIII. Next IT Meeting Date and Agenda Items.

The next meeting of the Implementation Team was set for Wednesday, October 4, from 9 a.m. to 4 p.m. at NMFS' Portland offices. Meeting notes prepared by Jeff Kuechle, BPA contractor.